

ABSTRACT OF THE DISCLOSURE

In a chemical reactor, a gas and a liquid which are in trace volumes are used to produce air bubbles and thus increase the interface area between the gas and liquid, substantially enhancing the efficiency of reaction between the gas and liquid.

The chemical reactor comprises the following: a sheath flow forming block which forms a plurality of alternating sheath flows with two mutually unmixable fluids; a plurality of inlet ports through which said two fluids flow into the sheath flow forming block; a contraction zone which simultaneously contracts a plurality of sheath flows formed in the sheath flow forming block; and reaction flow channels each of which is connected with said contraction zone and is smaller in width than the sheath flow forming block.